

Date: Fri, 24 Jun 94 04:30:34 PDT  
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>  
Errors-To: Ham-Digital-Errors@UCSD.Edu  
Reply-To: Ham-Digital@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Digital Digest V94 #206  
To: Ham-Digital

Ham-Digital Digest                      Fri, 24 Jun 94                      Volume 94 : Issue    206

Today's Topics:

    new HAMCOM interface with optical isolation  
        PACTOR FEC Frame  
    PC-PAKRATT II GMT default  
        What's packet radio?  
    Where current KA9Q TCP/IP Software?  
        Wormholes

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>  
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

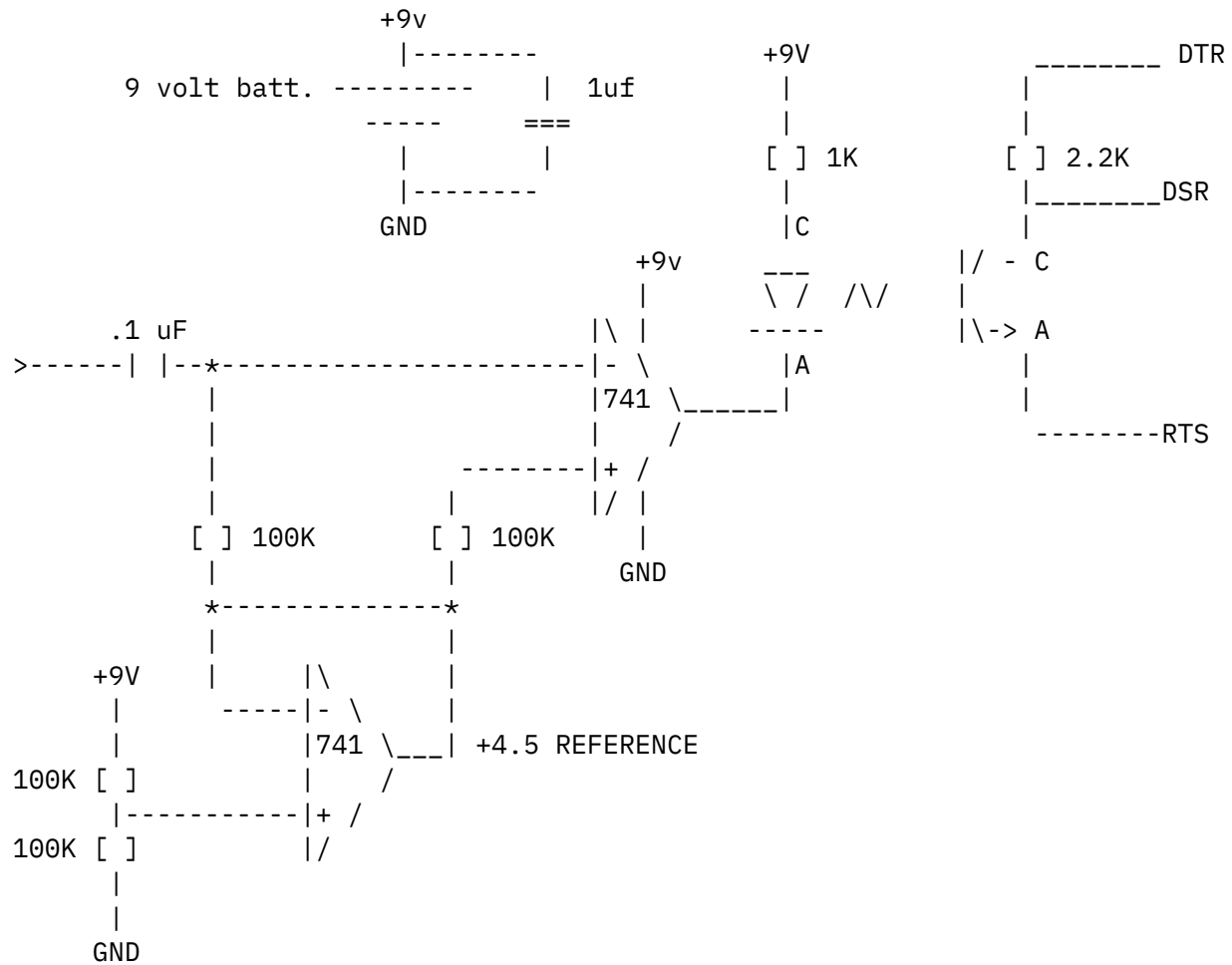
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Date: Thu, 23 Jun 1994 15:08:48 GMT  
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!news.cac.psu.edu!  
news.pop.psu.edu!psuvax1!news.ecn.bgu.edu!feenix.metronet.com!  
copeland@network.ucsd.edu  
Subject: new HAMCOM interface with optical isolation  
To: ham-digital@ucsd.edu

Here are two opto circuit I've been playing with for HAMCOM/JVFAX.  
They virtually eliminate all computer induced rfi. I've been using  
a five foot serial cable and twenty foot audio cable with this  
circuit and the results are truly remarkable with JVFX.

I've used the first circuit successfully, but recommend using the second.  
The first can be built with common Radio Shack parts. The second requires  
a little more uncommon LM358 and TIL181. The Radio Shack opto RECEIVER  
is only rated at 20v but used at 24v and could eventually burn out.  
It also may introduced problems since the +9v is not regulated and induces

Perhaps some engineers out there may have some advice.

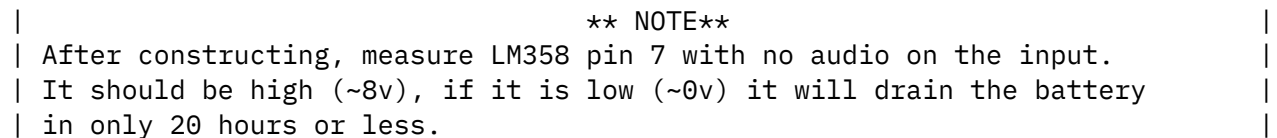


The LED and DETECTOR must be positioned right up against each other and exactly aligned to get maximum light transfer. The sides with the little lense like dots must be placed together.

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+9v          RS232 connector size ----> 25  9
--          -- --

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| To correct this: Disconnect R1 from +9v and reconnect to U1 pin 7.  
| Disconnect U1 pin 2 and reconnect to GND.  
|

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The LM358 is a single supply opamp and can be substituted with the LM2904, LM158, or LM258. (The dual supply 741 can not be used as a substitute.)

The opto isolator IC can be substituted for many other types. The 4N35 has been tested successfully. The discrete infared emitter/detector from Radio Shack has been tested successfully.

I tried to use a darlington opto (TIL113), but couldn't get it to work. A darlington opto circuit would only require 1.5ma average. That would make battery life about 133 hours. Maybe I'll try again later.

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MORE NOTES:

The 9v battery could be substituted with a 9 or 12 vdc adapter. However I've found the clearest pictures occur when both the radio and HAMCOM are running off batteries ... at 6am 8).

A 9v battery should last about 50 hours while audio is present (assuming 200ma hours for a battery). If no audio is present the battery will last 400 hours.

The battery life could be a problem for people who leave HAMCOM running all night using the timed FAX option. Battery would only last a week.

If you have any advice or knowledge that could improve this, please let me know.

copeland@metronet.com

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copeland@metronet.com

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copeland@metronet.com

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Date: Thu, 23 Jun 1994 08:00:49 GMT  
From: ihnp4.ucsd.edu!mvp.saic.com!eskimo!rdonnell@network.ucsd.edu  
Subject: PACTOR FEC Frame  
To: ham-digital@ucsd.edu

Rick Whiting (Rick\_Whiting@ATK.COM) wrote:

: There you have it, TOR fans! The PacTOR FEC frame revealed (assuming, of  
: course, that you've done your homework and know how the ARQ frame is  
: constructed). Remember, you read it first right here on the "ham digital"  
: newsgroup.

Actually, I think I saw it in QEX a couple of years ago, when the protocol  
was first presented...

73

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Bob Donnell, kd7nm      bob@ethanac.kd7nm.ampr.org      rdonnell@eskimo.com  
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Date: Thu, 23 Jun 1994 08:06:40 GMT  
From: ihnp4.ucsd.edu!mvp.saic.com!eskimo!rdonnell@network.ucsd.edu  
Subject: PC-PAKRATT II GMT default  
To: ham-digital@ucsd.edu

Brian M. Perkin (bmp@cup.hp.com) wrote:

: tmedin@che2.che.umn.edu wrote:  
: : does anyone out there know how to change the zulu time offset in this  
: : software? i purchased my software from someone in the Pacific time zone,  
: : with a used PK-232. it now has a 7 hour offset, i would like a 5 or 6 hour  
: : off set (CDT or CST).

: : tom medin, NOUFM  
: : internet: tmedin@che2.che.umn.edu  
: This is documented in the manual for the software.  
: Check your autoexec.bat for a set command that sets  
: the variable "TZ".  
: Brian

Another aspect of the TZ environment variable is that with most versions of  
DOS it will not take effect unless it is defined ahead of the path and/or  
prompt statements in your autoexec.bat file. What you want to do specifically

is add a line near the beginning of your autoexec.bat file that says:

```
SET TZ=CST6CDT
```

When PC-Pakratt II finds this environment variable and the date your computer is set for, it automagically determines if the 'daylight time' correction is needed instead of the 'standard time' correction.

73

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Bob Donnell, kd7nm      bob@ethanac.kd7nm.ampr.org      rdonnell@eskimo.com  
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Date: 23 Jun 94 15:50:32 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: What's packet radio?  
To: ham-digital@ucsd.edu

>What's packet radio and how does it work? Does it let you connect to the  
>internet? Is it expensive?

sounds like you might need more of a backgroud....

for starters call the American Radio Relay League at 800-32-new-ham and ask  
for the prospective ham package.

2nd look at a publication called "Now You're Talking" produced by the ARRL and  
available at places like Radio Shack -- this will cover some of the basics.

3rd look at a video tape produced by the guys at CQ Magazine called "Getting  
Started in Packet Radio" (if available).

if you want protocol details there are several documents that get into the  
meaning of the bits and all that.

there are content restrictions for amateur radio. so the answer is "no, packet  
radio doesn't let you connect to the internet at this time".

Expensive is relative. if you have a computer and the right software then you  
can have a cheap dumb modem. if you want "serial device independance" where  
you can use any RS-232 serial device with the packet station, then you are  
looking for a terminal node controller...

that should get you started...

bill wb9ivr

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Date: Thu, 23 Jun 1994 08:09:13 GMT  
From: ihnp4.ucsd.edu!mvb.saic.com!eskimo!rdonnell@network.ucsd.edu  
Subject: Where current KA9Q TCP/IP Software?  
To: ham-digital@ucsd.edu

Eric Struble (eric@terrapin.rose.hp.com) wrote:  
: I know this is probily a FAQ but I am looking for the most current revision  
: of the KA9Q TCP/IP NOS Software. O figured it would be on oakland but I  
: couldn't find any there....  
: Thanks in advance....  
: Eric

Take a look on ftp.ucsd.edu. Note that this is a different system at ucsd  
than the old 'ucsd.edu'.

73

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Bob Donnell, kd7nm      bob@ethanac.kd7nm.ampr.org      rdonnell@eskimo.com  
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Date: 23 Jun 1994 17:12:29 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.cac.psu.edu!news.pop.psu.edu!  
psuvax1!news.cc.swarthmore.edu!netnews.upenn.edu!gopher.cs.uofs.edu!  
triangle.cs.uofs.edu!bill@network.ucsd.  
Subject: Wormholes  
To: ham-digital@ucsd.edu

I seem to remember a while back some talk about using the INTERNET  
to provide wormholes to remote places. I even seem to recal that  
this capability was built into at least one version of NOS. Can  
anyone tell me where I can find out about this?? Are there any  
exotic places offering NETROM Nodes across the INTERNET?? Sure  
would impress the local ham community if I started running NETROM  
on my NOS box and had some european or australian Nodes in the table  
that were actually reachable.

Any information would be greatly appreciated.

bill      KB3YV

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Bill Gunshannon		de-moc-ra-cy (di mok' ra see) n. Three wolves
bill@cs.uofs.edu		and a sheep voting on what's for dinner.
University of Scranton		
Scranton, Pennsylvania		#include <std.disclaimer.h>

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End of Ham-Digital Digest V94 #206  
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